PREVENT STORM WATER CONTAMINATION
Best Management Practices for
Section F - Primary Metals Facilities

SIC Codes: 3310 through 3369, 3390-3399

General Information:

1) Federal and State Storm Water regulations require the City to reduce the quantity of pollutants that enter our storm drains, rivers and washes from rainwater and other sources. 2) Water from any source that contains contaminants is prohibited from entering the storm drain system which includes, streets, catch basins (street grates), ditches, washes, retention ponds (some parks) and rivers. 3) Commercial and industrial wash or wastewater is prohibited from entering the storm drain system, street or any other outside area. 4) You may request a temporary discharge permit by calling Storm Water Management at 256-3190 prior to discharging. Restrictions apply. 5) All washing activities that use soap, solvents, degreasers or any other chemicals must be hauled to a landfill or discharged into the sanitary sewer through a sand/oil interceptor or approved pretreatment device. 6) City Ordinance requires most commercial / industrial facilities to develop and implement a Storm Water Management Plan (SWMP). 7) These BMPs are not inclusive, and must be tailored for your facility. See 40CFR122 Section 6.F.3 October 30, 2000 for additional required BMPs.

Good housekeeping measures

- Include a cleaning/maintenance program for all impervious areas where particulate matter, dust, or debris may accumulate, especially in loading/unloading, storage, handling and process areas.
- Pave areas where vehicular traffic or material storage occurs and institute a sweeping schedule.
- Use sediment traps, vegetative buffer strips, fiber filter fences, or other devices to remove sediment.

Metal product stored outside such as foundry returns, scrap metal, turnings, fines, ingots, bars, pigs, and wire

- Store all wastes indoors or in sealed drums, covered dumpsters, etc.
- Minimize raw material storage through effective inventory control.
- Minimize run-on from adjacent properties and stabilized areas using diversion dikes, berms, curbing, concrete pads, etc.

Outdoor storage or handling of fluxes

- Store fluxes in covered hoppers, silos or indoors and protect from windblown losses.
- Stabilize areas surrounding storage and material handling areas and establish schedule for sweeping.

Storage of coke or coal

- Store under cover or indoors, protect from windblown losses.
- Prevent run-on with berms, dikes, swales or curbs.
- Control inventory to reduce loss.
- Use a filter fabric to trap particulate matter.

Storage or handling of casting sand

- Store raw sand in silos, covered hoppers or indoors whenever possible.
- Prevent or divert run-on from adjacent areas with swales, dikes or curbs.
- Minimize quantities of sand stored onsite through implementation of effective inventory control.
- Tarp or cover piles and berm to prevent run-on.

Outdoor storage of tanks or drums of gas, diesel, lubricants, or solvents

- Store tanks and drums inside when possible.
- Establish regular inspection of all tanks and drums for leaks, spills, corrosion, damage, etc.
- Use effective inventory control to reduce the volume of chemicals stored onsite.
- Prevent run-on and runoff from tank and drum storage areas, provide adequate containment to hold spills and leaks using secondary containment such as berms or specialized pallets.
- Prepare and train employees in dealing with spills and leaks properly, use dry clean-up methods when possible.

Slag and dross stored or disposed of outside in piles or drums

- Collect waste waters used for granulation of slag – these are not allowed under this section.
- Store slag and dross indoors, under cover or in sealed containers.
- Establish regular disposal of slag or dross to minimize quantities stored and handled onsite.
- Minimize run-on to slag storage areas with diversion dikes, berms, curbing or vegetated swales.
- Trap particulates originating in slag storage areas with filter fabric fences, gravel outlet protection, sediment traps, vegetated swales, buffer strips of vegetation, catch basin filters, retention/detention basins or equivalent.

Fly ash, dust collector sludges and solids, bag-house dust

- Store dust and sludges indoors.
- Dispose of wastes regularly to prevent spillage.

Storage of refractory waste rubble and sand

- Move piles under cover or tarps whenever possible.
- Establish a regular disposal schedule to minimize quantities stored on site.
- Stabilize areas of waste product storage and perform regular sweeping of the area.

Machine waste stored outside or exposed to storm water – fines, turnings, oil, borings, gates, sprues, and scale

- Store all wastes indoors or in sealed drums, covered dumpsters, etc.
- Stabilize areas of waste product storage and perform regular sweeping and cleaning of any residues.
- Consider using booms, oil/water separators, sand filters, etc. for outfalls draining areas where oil is potentially present.
- Minimize run-on from adjacent properties and stabilized areas using diversion dikes, berms, curbing, concrete pads, etc.

Material losses from handling equipment suchas conveyors, trucks, pallets, hoppers, etc.

- Schedule frequent inspections of equipment for spills or leakage of fluids, oil or fuel.
- Inspect for collection of particulate matter on and around equipment and clean. Where possible cover these areas to prevent losses to wind and precipitation.
- Store pallets, hoppers, etc. that have residual materials on them under cover, under tarps or inside.

Storage of products outside after painting, pickling or cleaning operations

- Store all materials inside or under cover when ever possible.
- Prevent run-on to product storage areas through curbs, berms, dikes, etc.
- Consider using booms, oil/water separators, sand filters, etc. for outfalls draining areas where oil is potentially present.
- Remove residual chemicals from intermediate or finished products before storage or transport outside.

Casting cooling or shakeout operations exposed to precipitation or wind

- Perform all pouring, cooling, and shakeout operations indoors in areas with roof vents to trap fugitive particulate emissions.
- Recycle into process as much casting sand as possible.

Losses of particulate matter from machining operations (grinding, drifting, boring, cutting) through deposition or storage of products outside

- Store all intermediate and finished products inside or under cover.
- Consider using booms, oil/water separators, sand filters, etc. for outfalls draining areas where oil is potentially present.
- Clean products of residual materials before storage outside.
- Stabilize storage areas and establish sweeping schedule.

Improper connection of floor, sink or process wastewater drains

- Inspect and test all floor, sink and process wastewater drains for proper connection to sanitary sewer and remove any improper connections to storm drains or waters of the United States.

Vehicle and equipment maintenance

- Establish an inventory program for all chemicals used during maintenance
- Store and dispose of used oily rags filters, coolants, batteries, in a manner that minimizes contact with runoff.
- Label and track used fluids and waste materials
- Drain oil filters before disposal or recycling
- Drain all fluids from parts
- Store liquids in compatible containers
- Train employees on BMPs
- Conduct regular BMP inspections to ensure they work

Fueling

- Use spill and overflow protection devices
- Eliminate runoff onto fuel islands
- Cover the fuel island with a roof to reduce runoff
- Provide curbs or posts around fuel islands to prevent collisions
- Conduct regular inspections for BMPs and spills

Vehicle and equipment washing

- Avoid washing vehicles or equipment outdoors
- Provide a permanent wash rack with a sand/oil interceptor connected to the sanitary sewer
- Install automatic shut-off valves on wash equipment
- Provide training for employees who use the equipment
- Recycle wash water

Training

- Provide employee training on appropriate storage and disposal of waste materials.
- Provide annual employee training on proper material handling and storage procedures. Require familiarization with applicable SPCC measures.
- Provide training on all aspects of the SWMP including BMPs.

Storm Water Pollution Prevention Plan (SWPPP) or Storm Water Management Plan (SWMP)

- Develop, implement and submit SWPPP or SWMP to the City for approval.
- All regulated facilities must submit a Notice of Intent (NOI) to ADEQ.
- The site plan shall specifically include in addition to other typical items, storage areas for spent solvents/baths, sand, slag/dross, liquid storage tanks/drums, processing areas including bag-houses, raw material storage areas for coal, coke, scrap, sand, fluxes, refractories, or metal in any form. Identify where an accumulation of particulate material could occur from source such as furnace or oven emissions, losses in handling coke/coal.

Inspections

- Conduct an inspection of the entire facility at least quarterly and within 24 hours after a drain event.
- At a minimum the inspection will include the following areas:
  - All air pollution control systems for signs of degradation, corrosion or improper operation
  - All process and material handling equipment
  - Material storage and chemical storage areas.
  - Complete the storm water BMP checklist during each inspection.
  - Review BMPs after each inspection and modify them and the SWPPP or SWMP as needed.
- Document all inspections and training and maintain the records for at least three years.

If spills occur:

- **Stop the source of the spill immediately.**
- **Contain the liquid until cleanup is complete.**
- **Deploy oil containment booms if the spill may reach a Stormdrain.**
- **Cover the spill with absorbent material.**
- **Keep the area well ventilated.**
- **Dispose of clean-up materials properly.**
- **Do not use an emulsifier or dispersant.**

The BMPs found on this page are paraphrased from Federal Storm Water documents 40CFR122, 1995 or later

Storm Water Management
A member of STORM
STormwater Outreach for Regional Municipalities

Only Rain in the Storm Drain!

602-256-3190
or 602-495-0334 in Spanish
Fax: 602-495-2016
Email: stormwtr.str@phoenix.gov

City of Phoenix
STREET TRANSPORTATION DEPARTMENT
STORM WATER MANAGEMENT SECTION

Upon request, the Street Transportation Department will make this publication available through appropriate auxiliary aids or services to accommodate an individual with a disability by calling 602-256-3190; or faxing a request to 602-495-2016.

Rev. 4/04